Amendments to the Specification

Please replace the paragraph beginning line 32, page 1, with the following amended paragraph:

--For example, ~~American Patent~~ US Pat. N°. 4,838,418 details the obtainment of HIPS mainly with capsular morphology through polymerization of styrene in presence of a styrene/butadiene copolymer with a 40/60 ratio and a chain transference agent as regulator of the of the polystyrene matrix molecular weight. On the other hand, ~~American patent~~ US Pat. N° 4,771,107 outlines the use of styrene/butadiene copolymers with a high-styrene content to produce ABS with good transparency. On its part, ~~patent~~ US Pat. N° 5,223,577 by means of using styrene/butadiene copolymers, and from polymerization of styrene and acrylonitrile in presence of such copolymers, details how to obtain ABS with good optical and mechanical properties.--

--Please replace the paragraph beginning line 5, page 2, with the following amended paragraph:

More recently, ~~American patent~~ US Pat. N° 5,756,579 details the use of styrene/butadiene copolymers with a low-styrene content to produce ABS with excellent balance ~~among~~ between the physical and mechanical properties. US Pat. N° 4,990,236 reports the synthesis of impact-resistant material through the *in situ* formation of an implanted copolymer by using, to that end, different SBR-, SBS-, BSB- and/or SBSB-type styrene/butadiene copolymers with different compositions, and styrene by means of a polymerization process in solution.--

Please replace the paragraph beginning line 12, page 2, with the following amended paragraph:

--On the other hand, ~~American patents~~ US Pat. ~~N°~~ Nos 5, 428,104, and 5,591,195 outline the HIPS synthesis by using

block copolymers of styrene/butadiene with a 30/70 ratio, where the particles obtained present capsule and hank-type morphologies, while the materials have a good firmness together with a high brightness. The reason for which different morphologies are obtained by using the same copolymer is due to the use of different concentrations of a chain transference agent during the synthesis process.--

Please replace the paragraph beginning line 18, page 2, with the following amended paragraph:

--On the other hand, ~~American patent~~ US Pat N° 5,473,014 details the production of HIPS with different morphologies by using mixtures of styrene/butadiene copolymers with different compositions, or else, by means of the joint action of polybutadiene and styrene/butadiene copolymers in different proportions. Therefore, capsule-, cell- and roll-type morphologies are featured and materials obtained display high brightness and great impact resistance, at the same time.--

Please replace the paragraph beginning line 24, page 2, with the following amended paragraph:

--~~American patents~~ US Pat. N° 5,985,997 and US Pat. N° 4,524,180 ~~outlines~~ --outline the styrene polymerization reaction in presence of polybutadiene and a styrene/butadiene block copolymer ~~in styrene/butadiene blocks~~ with a 40/60 ratio. The obtained HIPS feature a bimodal distribution of particles with capsule-type morphologies, with a particle size of 0.2 to 0.6 μm, and particles with salami-type morphologies with a size of 1.2 to 8 μm. The presence of such particle types and sizes give the material, at the same time, good mechanical and optical properties.--

Please amend the title on line 1, page 3, as follows:

--~~OBJECTIVES~~ OBJECTS OF THE INVENTION—

Please amend the title on line 10, page 3, as follows:

--BRIEF DESCRIPTION OF THE FIGURES--

Please replace the paragraph beginning line 12, page 4, with the following amended paragraph:

--A) A block copolymer ~~in blocks~~ based on alkadiene (conjugated diene), and an aromatic vinyl compound with at least one block of the polydispersed vinyl aromatic compound; and--

Please replace the paragraph beginning line 26, page 4, with the following amended paragraph:

--The production of impact-resistant materials, according to this invention, is performed through polymerization, preferably selected among batch polymerization, ~~continual or semi-continual~~ continuous or semi-continuous polymerization, polymerization of a vinyl aromatic monomer solution, preferably styrene, and a block copolymer ~~in blocks~~ based on an alkadiene (conjugated diene), and a vinyl aromatic compound, with at least, a block of the polydispersed vinyl aromatic compound, preferably a styrene/butadiene copolymer with a polydispersity of the polystyrene block at interval of ~~10.1~~ 1.01 to 4. The production of such materials is preferably carried out by a mass process, thoroughly outlined in the state of the art, by using free radical initiators, variable agitation between 30-150 rpm, and by using a configuration in the agitation system preferably of the anchor-turbine type, until attaining the

inversion of phases. Once it has happened, generally at 20-40% of conversion, reaction is resumed in suspension by using a suspension medium, which basically consists of water, polyvinyl alcohol, nonylphenol and sodium chloride in variable ratios. Any other well-known suspension medium, however, can be used in the state of the art as regards polymerization processes in suspension. Materials produced in that way present diverse morphologies dot-, rod- or capsule-type., which will mainly depend on the block polydispersity of polystyrene in the predecessor copolymer, with particle sizes of 0.2 μm, which at the same time, give the material a good transparency and impact.--

Please insert the following new paragraphs immediately before the paragraph beginning line 8, page 5, as follows:

--Copolymers that may be used in this invention are preferably selected from the group consisting of linear, radial, perfect and partially randomized block copolymers corresponding to funeral formula (I)

$$[B(B/S)Sij)]\ Z \qquad (I)$$

Wherein i and j are integers equal to or greater than 1;

Z is a residue of a coupling agent or a termination agent;

S is a vinyl aromatic monomer; and

B is a conjugated diene;

And wherein the elastomeric portion (alkadiene) may be totally or partially hydrogenated. The S/B copolymer ratio is from 10/90 to 90/10.--

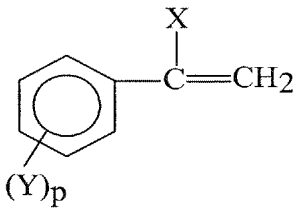
Please replace the paragraph beginning line 8, page 5, with the following amended paragraph:

--~~Copolymers that may be used in this invention, are preferably selected among linear or radial block copolymers, in perfect blocks or partially randomized blocks responding to the general formula [(B(B/S)s) i (j)] i Z, where i, j = 1, 2, 3...; Z = remains of the coupling agent or termination agent, S a vinyl aromatic monomer and B an alkadiene and where the elastomeric portion may be totally or partially hydrogenated. The S/B copolymer composition may vary between 10/90 to 90/10, preferably 20/80 to 80/20, and more preferably 30/70 to 40/60.~~ Molecular weights of copolymer can be between the interval 100, 000 to 450,000 g/mol. The molecular weight of the vinyl aromatic monomer-based polymer block ranges between the interval of 5, 000 to ~~420, 00o~~ 420,000 g/mol, preferably 30, 000 to 120, 000 g/mol, and the vinyl aromatic monomer block presents a polydispersity Mw/Mn at the interval of 1.01 to 4. Copolymers with the afore-outlined molecular parameters are preferably obtained through anionic polymerization; but any other polymerization method may be indistinctly used and which leads to the formation of copolymers with the desired characteristics.--

Please replace the paragraph beginning line 22, page 5, with the following amended paragraph:

--For the production of impact-resistant materials from block copolymers with polydispersed blocks, subject matter of this invention, the styrene monomer is preferably used. However, it is possible to use different vinyl aromatic

monomers, understanding as such, the non-saturated ethylene compound of the formula ~~(I)~~ (11):



~~(I)~~ (11)

Where X represents a hydrogen or ~~an~~ a C_1-C_4 alkyl radical ~~with C_1-C_4~~;

p is zero or ~~a whole number between 1 and 4~~ an integer from 1 to 54; and

Y represents a halogen or ~~an~~ a C_1-C_4 alkyl radical ~~with C_1-C_4~~.

Among the vinyl aromatic monomers responding to the formula (I) according to this invention are the following: toluene vinyl, styrene, methyl-styrene, mono-, di-, tri-, tetra-, and penta- chlorostyrene, and the corresponding alpha-methylstyrene, alkylated in the nucleus, and the corresponding to alpha-methylstyrene; ortho- and para-methylstyrene, ortho- and para-ethylstyrene, ortho- and para-methyl-alpha-styrene, among others. These monomers can be used alone or in combinations of them, or with any other polymerizable monomer, preferably acrylic monomers, ~~metacrylic~~ methacrylic, acrylonitrile, and maleic anhydride, among others.--

Please replace the paragraph beginning line 8, page 8, with the following amended paragraph:

--In a reactor with a 1 gallon capacity, 920 g (92 % P/P) of styrene were added, as well as 80 g ~~(8$% P/P)~~ (8% P/P) of copolymer H1-PT1 (Table 1), and was stirred up at 65 rpm at room temperature until the complete dissolution of elastomer. By this time, it was added a 0.05% P/P of ~~benzoile~~ benzoyl peroxide (BPO) and polymerized at 80 °C and keep the stirring up constant at 40 rpm until inversion of phases (25-30% of conversion). Thereafter, 0.1% P/P of ~~terbutile~~ terbutyl perbenzoate (PBTB) was incorporated to the reaction system, followed by the suspension medium. The latter consisted of 2 liters of water, 1.8 g of polyvinyl alcohol, 0.7 g of nonylphenol, and 1,7 g of sodium chloride. The polymerization reaction continued at an agitation speed of 650-700 rpm following a ramp program temperature-time of 2 hours, at 125°C, 2 hours at 145°C. Thereafter, the product (pearls) was filtrated, cleansed and dried.--